



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,270	03/31/2004	Meng-An Pan	58268.00348	5391
32294	7590	11/28/2007	EXAMINER	
SQUIRE, SANDERS & DEMPSEY L.L.P.			LE, NHAN T	
14TH FLOOR			ART UNIT	PAPER NUMBER
8000 TOWERS CRESCENT			2618	
TYSONS CORNER, VA 22182				
MAIL DATE		DELIVERY MODE		
11/28/2007		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/813,270	PAN, MENG-AN
	Examiner	Art Unit
	Nhan T. Le	2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 17 September 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-4 and 7-11 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-4, 7-11 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 7, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al (US 7,171,185) in view of Tomita (US 7,120,416)

As to claims 1, 7, 8, Matsumoto teaches a method, comprising: filtering a signal with a highpass filter (see fig. 10, numbers 12a-12d, col. 7, lines 21-35); measuring image rejection and DC offset of the filtered signal (see fig. 10, number 16, col. 7, lines 21-35); and wherein the filtering, measuring and adjusting is repeated until a compromise between DC offset rejection and image rejection is achieved and wherein the compromise is reached when the DC offset rejection is within acceptable tolerances and image rejection meets minimum pre-specified requirements (see col. 8, lines 21-67, col. 9, lines 1-9). Matsumoto fails to teach wherein the filter is BPF and adjusting a center frequency of the band-pass filter. Tomita teaches wherein the filter is BPF (see fig. 1, number 14, col. 1, lines 35-49) and adjusting a center frequency of the band-pass filter (see col. 1, lines 51-60). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Tomita into the system of Matsumoto and Tomita in order to match the reference frequency of the mobile device and the base station.

2. Claims 2-4, 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al (US 7,171,185) in view of Tomita (US 7,120,416) in view of Vinn et al (US 6,441,682).

As to claims 2-4, 9-11, the combination of the combination of Matsumoto and Tomita fails to teach wherein the bandpass filter comprises two cross-coupled low pass filters; wherein the cross-coupling includes cross-coupled variable resistors and wherein the adjusting is done by varying the resistance of the cross-coupled variable resistors. Vinn teaches wherein the bandpass filter comprises two cross-coupled filters (see col. 5, lines 55-61); wherein the cross-coupling includes cross-coupled resistor and wherein the adjusting is done by varying the resistance of the cross-coupled resistor (see col. 7, lines 4-21). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Vinn into the system of Matsumoto and Tomita in order to adjust the center frequency.

Response to Arguments

3. Applicant's arguments with respect to claims 1-4, 7-11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Le whose telephone number is 571-272-7892. The examiner can normally be reached on 08:00-05:00 (Mon-Fri).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Nhan T. Le